



# Libby rewriting asbestos research

## Medical experts told to think differently at Missoula conference

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Western News Reporter

Medical experts will need to rewrite research methods to treat Libby individuals exposed to the "nasty" type of asbestos fibers plaguing the town, a panel of asbestos experts concluded Monday during a conference in Missoula.

A nine-member group of federal, state and private researchers presented plans to revolutionize current methods of asbestos study during the Monday morning session of a two-day medical conference called "New Directions and Needs in Asbestos Research." The conference drew about 250 researchers/doctors from all over the United States and Europe.

The primary objective of the seminars is to define treatment standards for asbestos sufferers, identify the most potent exposure pathways, track the progression of illness and to initiate effective research patterns.

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The asbestos problem in Libby, which gained national media attention in 1999, deserves specific attention due to the strange and often-terminal nature of the mineral type once mined there.

"Many of you have not worked with this before," said program director Andrij Holien, a University of Montana researcher. "This is different than most amphiboles (asbestos). It is a different mechanism."

Doctors cringed and whispered as they were shown pictures of the mine spewing plumes of dusty material into the air during its 80 years of opera-

tion. More than 24,000 pounds of dusty waste, including about 5,000 pounds of tremolite asbestos, was released each day by the W.R. Grace vermiculite mine. Tremolite, designated as one of the most deadly forms of asbestos, formed naturally along with the vermiculite ore mined at Libby.

Among the presenters was Dr. Alan Whitehouse, a pulmonary expert from Spokane, who told the group that tremolite causes progressive types of lung disorders that many times lead to death.

No studies have proven conclusively that other types of commercial asbestos cause progressive lung disease. Whitehouse said that his studies show a 76-percent progression rate from tremolite-related pleural plaquing, patches of hardened discolored tissue on the lining of the chest cavity, to severe complications such as

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asbestosis, lung cancer and mesothelioma, a rare type of malignancy indicative of asbestos exposure.

While cases of mesothelioma appear in approximately one out of 1 million in the general population of the U.S., doctors in Libby reported that about 23 cases of "meso" have popped up in Libby in recent years, an astonishing number when paired with a population of around 12,000. Since 1979, 169 Montana deaths, 153 of them proven by histological evidence, have been caused by meso, according to Dr. Mike Spence, state health officer.

Those figures, along with private practice research, prove a link between progression and early-stage symptoms of exposure to tremolite, said Whitehouse, who has treated 442 asbestos patients in the past two decades. Thirty-six of those patients have died, 15 from tumors associated with asbestos exposure and another 16 from respiratory failure, Whitehouse reported.

"Pleural disease is progressive," Whitehouse said. "It is not benign."

"Pleural disease, for the most part, is not described as progressive with chrysotile asbestos, at least not to the degree we see here."

That's the kicker, say asbestos victims.

"We're the petri dish of the world - a lot of doctors don't know what they are dealing with," said victim advocate Gayla Benefield, an asbestosis patient who lost both parents to asbestos-related disease. "The main thing is that the doctors make a distinction between tremolite and other asbestos types. We already know it's bad, now we just need to hear the experts say so."

Eighteen percent of the 7,299 Libby-area residents screened sustained asbestos-related lung changes, according to the federal Agency for Toxic Substances and Disease Registry. The screenings do not confirm asbestos-related diseases, said Dr. Jeff Lybarger, of the ATSDR.

"The screenings, conducted in 2000-2001, showed that former W.R. Grace mine employees are 7.7 times more likely to develop a lung abnormality than other Libby residents that report such vicarious exposures as playing in vermiculite piles around town or merely participating in athletic activities at local schools and ball fields where tremolite was discovered by the Environmental Protection Agency.

"However, living with a mine worker is also a significant form of exposure," Lybarger said.

"Household contact presents a 3.3 times greater risk."

Cigarette smoking and increased body mass also contribute to the lung defects, Lybarger said, but not nearly as

much as regular, close contact with the mine or miners. Smoking is a "key risk factor" with the potential to double the risk of developing an abnormality, Lybarger said.

The EPA emergency response team, which three years ago set up an on-site headquarters in Libby, also discovered that pure tremolite was used to sand the streets during winter months, said EPA toxicologist Chris Weis.

More than 850 Libby residents have been diagnosed with an asbestos-related disease, a rate of more than 40 times the national average, according to Lincoln County health officer Dr. Brad Black. He estimates another 400-500 people may join that list in coming years. ATSDR estimates confirm Black's suspicions, noting that more than 1,200 are expected to develop an asbestos related disease.

However, Black admitted he had not established a standard of diagnosis to clearly define what asbestos-related disease actually is. He said that is part of why the Libby medical community is petitioning the rest of the medical world for help, so that guidelines can be established.

"You absolutely need a standard to make a clinical diagnosis," said Dana Headopahl, a Missoula researcher. "Otherwise you have nothing to compare it to."

Some asbestos experts have completely rejected the criteria

for diagnosis, which at this point relies on the trials and experience of doctors treating a majority of the asbestos patients.

Dr. Paul Saurel Wheeler, of Johns Hopkins Hospital in Baltimore, is one of those critics. He says histological evidence by biopsy or autopsy is the only way to determine a case of asbestosis.

Spence, though, said histology is unnecessary.

"Current wisdom would suggest that radiography is enough

to determine asbestos-caused lung abnormalities," other than cancer or meso, Spence said.

And the problem is not going away, Spence added. He estimates the effects of exposure could last for another 50 years.

Spence warned that the Libby problem is not as isolated as they might hope. The EPA is now scrutinizing about 250 W.R. Grace processing plants, including plants in Seattle and Spokane.

"It's not just concentrated in

Libby," he said, "but rather along major railroads that transported this stuff."

The mine near Libby supplied more than 80 percent of the world's vermiculite, which is used in home insulation and gardening additives. It is estimated that 10-30 million homes in the country contain vermiculite insulation.

But insulation exposure is not the primary concern of researchers, and most experts seem to feel that one exposure

pathway is not as dangerous as the 18 possible methods of exposure identified in Libby.

Lybarger noted that the risk of disease increases comparatively with the number of ways a person is exposed. One of his studies showed individuals with six or more instances of exposure were five times more likely to develop a lung abnormality than an individual who had only one type of encounter with tremolite. "This is a nasty fiber," Weis pointed out.